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IS : 9568 (Part II) - 1981

Indian Standard (Reaffirmed 1998)

**SPECIFICATION FOR
METALLIC CARD CLOTHING**

PART II BEAD WIRES

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SPECIFICATION FOR METALLIC CARD CLOTHING

PART II BEAD WIRES

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Indian Standard
**SPECIFICATION FOR
METALLIC CARD CLOTHING
PART II BEAD WIRES**

0. FOREWORD

0.1 This Indian Standard (Part II) was adopted by the Indian Standards Institution on 13 March 1981, after the draft finalized by the Spinning Machinery (Cotton System) Sectional Committee had been approved by the Textile Division Council.

0.2 This standard is based on ISO/DP 6171 'Textile machinery and accessories—Main types and allied dimensions of bead wires and corresponding grooves for cards' issued by the International Organization for Standardization (ISO).

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard (Part II) specifies dimensions, shapes and cross sections of main types of bead wires, base and end wires together with their corresponding grooves and application as used for mounting or fastening metallic card clothing on rollers.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions of terms relating to bead wires as given in Table 1 and of terms relating to saw-tooth wire of various cross sections and tooth forms for metallic card clothing as given in Part I of the standard shall apply.

*Rules for rounding off numerical values (revised).

TABLE 1 DEFINITIONS OF TERMS
(Clause 2.1)

TERM	SYMBOL	DEFINITION
Width	a	Overall width of wire (except wires with rectangular section)
Width of tongue	b	Width of tongue or lip; one of which fits into the roller groove and the other forms the rib against which the saw-tooth wire abuts or width of wire with rectangular section
Height	h	Overall height of wire
Base thickness	n	Size of wire connecting the two tongues or lips together
Height of tongue	t	The projection of tongue above the wire base
Tooth pitch	p	Distance between the leading edge of two consecutive teeth
Tooth depth	u	Depth to which tooth is cut from the top of the wire
Radius	R	Radius at base of tooth cut out
Pitch of groove	A	Distance from roller edge to inside face of groove
Groove width	B	Width of groove in roller into which bead wire is inserted
Step dimension	N	Dimension of step turned in roller to receive base part of wire
Groove depth	T	Depth of groove below the surface at the end of the roller

3. TYPES OF BEAD WIRES AND CORRESPONDING GROOVES

3.1 Z-Type Bead Wire — The section of Z-type wire, groove for Z-type wire and the application on the roller are shown in Fig. 1, 2 and 3 respectively.

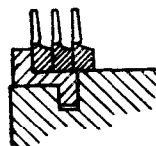
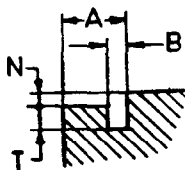
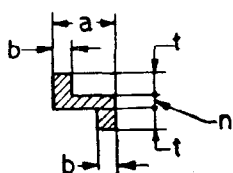


FIG. 1 SECTION OF Z-TYPE WIRE

FIG. 2 GROOVE FOR Z-TYPE WIRE

FIG. 3 APPLICATION OF Z-TYPE WIRE ON ROLLER

3.1.1 The dimensions of Z-type bead wire shall conform to the requirements of Table 2 read with Fig. 1 and 2.

TABLE 2 DIMENSIONS OF Z-TYPE BEAD WIRE

All dimensions in millimetres.

a	b^*	n	t	A <i>Min</i>	$B^\dagger$	$N^\dagger$	T <i>Min</i>
5 ± 0.5	1.5 ± 0.3	1.5 ± 0.05	1.75 ± 0.05	5	1.5	1.5	1.85

*The bead wires for replacement may have all plus tolerance having a range of 0.06 mm. The maximum plus tolerance shall not exceed 0.10 mm.

†Deviations according to the choice of the manufacturer.

3.2 I-Type of Bead Wire — The section of I-type wire, groove for I-type wire and its application on the roller are shown in Fig. 4, 5 and 6 respectively.

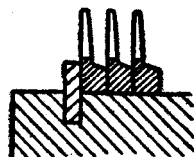
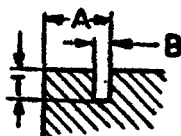
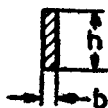


FIG. 4 SECTION OF
I-TYPE WIRE

FIG. 5 GROOVE FOR
I-TYPE WIRE

FIG. 6 APPLICATION OF
I-TYPE WIRE ON ROLLER

3.2.1 The dimensions of I-type bead wire shall conform to the requirements of Table 3 read with Fig. 4 and 5.

TABLE 3 DIMENSIONS OF I-TYPE BEAD WIRE

All dimensions in millimetres.

b^*	h	A	$B^\dagger$	T
1 ± 0.03	3.5 ± 0.10	‡	{ 1 1.5 }	‡
1.5 ± 0.03	4.5 ± 0.10			

*The bead wires for replacement may have all plus tolerance having a range of 0.06 mm. The maximum plus tolerance shall not exceed 0.10 mm.

†Deviations according to the choice of the manufacturer.

‡The values for A and T are left to the choice of the manufacturer.

3.3 L-Type Bead Wire (Anti-flock) — The section and front view of L-type wire, groove for L-type wire and its application on the roller are shown in Fig. 7, 8 and 9 respectively.

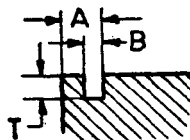
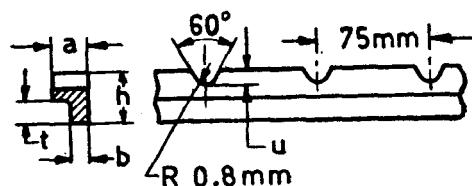


FIG. 7 SECTION AND FRONT VIEW OF L-TYPE WIRE

FIG. 8 GROOVE FOR L-TYPE WIRE

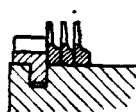


FIG. 9 APPLICATION OF L-TYPE WIRE ON ROLLER

3.3.1 The dimensions of L-type bead wire shall conform to the requirements of Table 4 read with Fig. 7 and 8.

TABLE 4 DIMENSIONS OF L-TYPE BEAD WIRE

All dimensions in millimetres.

a	b^*	h	t	u	A_{Min}	$B^\dagger$	T_{Min}
2.5 ± 0.1	1.2 ± 0.03	3.5 ± 0.05	1.6 ± 0.05	1.1	2.5	1.2	1.7

*The bead wires for replacement may have all plus tolerance having a range of 0.06 mm. The maximum plus tolerance shall not exceed 0.10 mm.

†Deviations according to the choice of the manufacturer.

4. BASE AND END WIRES

4.1 Base Wire — The section and front view of base wire is shown in Fig. 10.

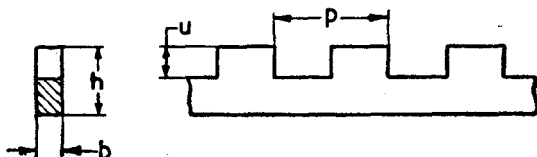


FIG. 10 SECTION AND FRONT VIEW OF BASE WIRE

4.2 End Wire — The section of end wire and groove for the same are shown in Fig. 11 and 12 respectively.

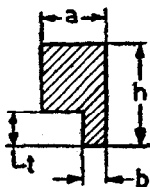


FIG. 11 SECTION OF END WIRE

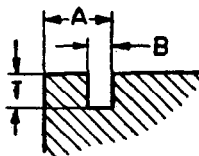


FIG. 12 GROOVE FOR END WIRE

4.3 Method of Mounting the Foregoing Wire Sections — Figure 13 shows mounting of base and end wire with I-type bead wire.

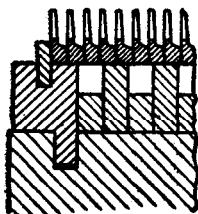


FIG. 13 MOUNTING OF BASE AND END WIRES WITH I-TYPE BEAD WIRE

INDIAN STANDARDS

ON

SPINNING MACHINERY COMPONENTS

IS:

- 837-1962 Doffer and flat stripping comb blades
- 838-1976 Tin rollers for cotton ring spinning frames (*first revision*)
- 1927-1980 Flat driving chains (*first revision*)
- 2510-1976 Bottom rollers for drafting systems (*third revision*)
- 2699-1964 Flats and flats' screws
- 3056-1965 Lap rods
- 3078-1976 Rings for spinning and doubling frames (*third revision*)
- 3176-1971 Anti-friction bearing type top rollers for ring and speed frames (*first revision*)
- 3183-1965 Saw-toothed wire for licker-in cylinder
- 3190-1965 Designation of sides and hand of spinning preparatory, spinning and doubling machinery
- 3446-1977 Leather aprons for drafting systems (*first revision*)
- 3523-1974 Metal travellers for ring spinning frame (*second revision*)
- 3698-1977 Spindles for warp ring frames (*first revision*)
- 3934-1974 Aluminium plug type spindles for spinning and doubling frames (*first revision*)
- 4474-1967 Glossary of terms relating to drafting in spinning machines
- 4892-1968 Synthetic rubber aprons (reinforced) for drafting systems
- 5138-1980 Ear-shaped metal travellers for doubling frames (*first revision*)
- 5938-1970 Spindle gauges for cotton ring spinning and ring doubling (twisting) frames
- 6001-1971 Flyer spindles
- 6068-1970 Nomenclature of spinning machinery (preparatory to doubling) — cotton system
- 6686-1972 Nose bars for speed and ring spinning frames
- 6786-1972 Leaf gauges for carding engine (metric system)
- 7175-1974 Cots for top rollers
- 7488-1974 Working widths of worsted and woollen cards
- 7875 Sliver cans used in textile mills:
 - (Part I)-1976 General requirements
 - (Part II)-1975 Vulcanized fibre sliver cans
 - (Part III)-1975 Aluminium alloy sliver cans
- 8750-1978 Code of practice for packing of bottom rollers for drafting systems
- 8831-1978 Code of practice for maintenance of bottom rollers for drafting systems
- 8974-1978 Aprons (combing leathers) for gill box used on worsted machinery
- 8975-1978 Aprons (combing leathers) for french combs used on worsted machinery
- 9225-1980 Wires for flexible card clothing
- 9568 (Part I)-1980 Metallic card clothing: Part I Terminology